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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---------------|----------------------|-------------------------|------------------|
| 09/771,425 | 01/26/2001 | Xaveer Van Ostade | 4644US | 8053 |
| 75 | 90 01/30/2003 | | | |
| Allen C. Turner TRASK BRITT P.O. BOX 2550 | | | EXAMINER LI, RUIXIANG | |
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| Salt Lake City, | UT 84110 | | ART UNIT PAPER NUMBER | |
| | | • | ARI UNII | I AI EK NOMBER |
| | | | 1646 | : 1 |
| | | | DATE MAILED: 01/30/2003 | 15 |

Please find below and/or attached an Office communication concerning this application or proceeding.

| • | Application No. | Applicant(s) | | | |
|--|---|--|--|--|--|
| Advisory Action | 09/771,425 | OSTADE ET AL. | | | |
| 7.6.7.5.7 | Examiner | Art Unit | | | |
| | Ruixiang Li | 1646 | | | |
| The MAILING DATE fthis communication appe | ars on the cover sheet with the c | orrespondence addre | 9ss | | |
| THE REPLY FILED 18 December 2002 FAILS TO PLAC Therefore, further action by the applicant is required to av final rejection under 37 CFR 1.113 may only be either: (1) condition for allowance; (2) a timely filed Notice of Appeal Examination (RCE) in compliance with 37 CFR 1.114. | oid abandonment of this applica a timely filed amendment which | ation. A proper reply n places the applicati | to a on in | | |
| PERIOD FOR RE | PLY [check either a) or b)] | | | | |
| a) The period for reply expiresmonths from the mailing b) The period for reply expires on: (1) the mailing date of this A no event, however, will the statutory period for reply expire Is ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS 706.07(f). Extensions of time may be obtained under 37 CFR 1.136(a). The fee have been filed is the date for purposes of determining the period of fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the content | dvisory Action, or (2) the date set forth ater than SIX MONTHS from the mailing FILED WITHIN TWO MONTHS OF THE date on which the petition under 37 CFI of extension and the corresponding amount he shortened statutory period for reply the later than three months after the mail | g date of the final rejection IE FINAL REJECTION. S R 1.136(a) and the appropunt of the fee. The approportionally set in the final O | n. see MPEP oriate extension priate extension office action; or | | |
| 1. A Notice of Appeal was filed on Appellant's 37 CFR 1.192(a), or any extension thereof (37 CFF | • | | | | |
| 2. The proposed amendment(s) will not be entered be | cause: | | | | |
| (a) 🔀 they raise new issues that would require further | er consideration and/or search (s | see NOTE below); | | | |
| (b) they raise the issue of new matter (see Note below); | | | | | |
| (c) they are not deemed to place the application ir issues for appeal; and/or | better form for appeal by mater | rially reducing or sim | plifying the | | |
| (d) M they present additional claims without canceling | ng a corresponding number of fi | nally rejected claims. | • | | |
| NOTE: See Continuation Sheet. | | | | | |
| 3. Applicant's reply has overcome the following rejection | on(s): | | | | |
| 4. Newly proposed or amended claim(s) would canceling the non-allowable claim(s). | be allowable if submitted in a se | eparate, timely filed a | mendment | | |
| 5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for application in condition for allowance because: See | reconsideration has been consi | dered but does NOT | place the | | |
| The affidavit or exhibit will NOT be considered becaraised by the Examiner in the final rejection. | ause it is not directed SOLELY to | o issues which were | newly | | |
| 7. For purposes of Appeal, the proposed amendment(explanation of how the new or amended claims wo | uld be rejected is provided below | w or appended. | | | |
| The status of the claim(s) is (or will be) as follows: Claim(s) allowed: | Elyabeth C | Kemme | u | | |
| Claim(s) objected to: Claim(s) rejected: <u>1-11,14-19 and 21-23</u> . Claim(s) withdrawn from consideration: | ELIZARST! Parlicin | NKENNAEPER PENNASSER | | | |
| 8. The proposed drawing correction filed on is a | a)□ approved or b)□ disapp | roved by the Examin | er | | |
| _ | | | OI. | | |
| _ | цэд г 10-1449) гарег No(s) | ' | | | |
| 10. Other: | | | | | |
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*Continuation of 2. NOTE: New claim 24 raises the following new issues: (i) it recites the term "interfering", which is indefiniete because it implies either "enhancing" or "inhibiting" and an antagonist can not enhance ligand-receptor binding; (ii) it recites "assaying the activity of each compound" without clearly pointing out what activity of each compound will be assayed; and (iii) it recites "based on said assaying, determining the presence of an antagonist". It is unclear what results of the assay are required to determine the presence of an antagonist.

Continuation of 5. does NOT place the application in condition for allowance because:

The rejection of claims 15-19 under 35 U.S.C. 112, 2nd paragraph remains. It is unclear how the method can screen for an orphan receptor and its unknown ligands at the same time. It appears that the preamble of the claim should read as" A method of screening for ligands of an orphan receptor". In addition, the steps of the method fails to point out how to determine whether a test compound is a lignad of the orphan receptor.

The rejection of claims 1-11, 14-19, 21-23 under 35 U.S.C. (a) also remains. Applicants argue that (i) that the Office action has not indicated where a motivation or suggestion exists in the cited references to combine them; and (ii) that because no reasonable expectation of success exists in combining the cited references, a prima facie case of obviousness cannot be established. This has been fully considered but is not deemed to be persuasive for the reasons set forth in the previous office action in Paper No. 13.

Applicants argue that mammalian cells express many potential interfering receptors. This is not found to be persuasive because Trueheart et al. teach methods for identifying receptor agonists or antagonists in mammalian cells comprising an autocrine system (page 20).

Applicants further argue that the responsive CHO cells of Muthukumaran et al. are not normal mammalian cells. This has been fully considred but is not deemed to be persuasive for the following reasons. The CHO-B7 cells transfected with IFNgammaR2 or gammaR2/EPOR cDNA showed no response to Hu-IFN-gammaR1due to lack of the ligand-binding receptor subunit Hu-IFN-gammaR1. One skilled in the art would expect the same result. On the other hand, the parental CHO-16-9 cells which express Hu-IFN-gammaR1, when stably transfected with expression vectors encoding Hu-IFN-gammaR2 cDNA or gammaR2/EpoR chimera receptor exhibited response to Hu-IFN-gamma. Muthukumaran et al. further teach various chimeric receptors between the EpoR and Hu-IFN-gammaR1 and Hu-IFN-gammaR2 subunits (left column of page 4995). For example, the chimeric receptor, EpoR/gammaR1.EpoR/gammaR2 heterodimer is a fully finctional receptor complex and responds to Epo (Abstract; right column of page 4995). Therefore, the CHO cells of Muthukumaran et al. are not abnormal, but uniqe in that the transfected chimeric receptors function specifically in response to Hu-IFN-gammaR1 or Epo.